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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/630,595	07/29/2003	Yuichi Yagawa	16869B-064300US	1653
20350	7590 03/27/2006		EXAMINER	
	AND TOWNSEND	DWIVEDI, MAHESH H		
	TWO EMBARCADERO CENTER EIGHTH FLOOR			PAPER NUMBER
SAN FRANCISCO, CA 94111-3834			2168	
			DATE MAILED: 03/27/2006	

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)				
	10/630,595	YAGAWA, YUICHI				
Office Action Summary	Examiner	Art Unit				
	Mahesh H. Dwivedi	2168				
The MAILING DATE of this communication app Period for Reply	pears on the cover sheet with the c	orrespondence address				
A SHORTENED STATUTORY PERIOD FOR REPL' WHICHEVER IS LONGER, FROM THE MAILING D. Extensions of time may be available under the provisions of 37 CFR 1.1 after SIX (6) MONTHS from the mailing date of this communication. If NO period for reply is specified above, the maximum statutory period of Failure to reply within the set or extended period for reply will, by statute Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	ATE OF THIS COMMUNICATION 36(a). In no event, however, may a reply be tin will apply and will expire SIX (6) MONTHS from a cause the application to become ABANDONE	N.  nely filed  the mailing date of this communication.  D (35 U.S.C. § 133).				
Status	•					
1) Responsive to communication(s) filed on 29 Ju	uly 2003.					
,-						
3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is						
closed in accordance with the practice under E	Ex parte Quayle, 1935 C.D. 11, 4	53 O.G. 213.				
Disposition of Claims		·				
4)⊠ Claim(s) 1-43 is/are pending in the application						
4a) Of the above claim(s) is/are withdrawn from consideration.						
5) Claim(s) is/are allowed.						
6)⊠ Claim(s) <u>1-43</u> is/are rejected.		•				
7) Claim(s) is/are objected to.						
8) Claim(s) are subject to restriction and/o	or election requirement.					
Application Papers	·					
9)⊠ The specification is objected to by the Examine	er.					
10) The drawing(s) filed on 29 July 2003 is/are: a)	☐ accepted or b)☐ objected to	by the Examiner.				
Applicant may not request that any objection to the						
Replacement drawing sheet(s) including the correct 11) The oath or declaration is objected to by the Ex						
Priority under 35 U.S.C. § 119	•	,				
12) Acknowledgment is made of a claim for foreign a) All b) Some * c) None of:	n priority under 35 U.S.C. § 119(a	)-(d) or (f).				
1. Certified copies of the priority documents have been received.						
2. Certified copies of the priority documents have been received in Application No						
<ol><li>Copies of the certified copies of the price</li></ol>		ed in this National Stage				
application from the International Burea						
* See the attached detailed Office action for a list	t of the certified copies not receive	ea.				
*	•	·				
Attachment(s)						
1) Notice of References Cited (PTO-892)  4) Interview Summary (PTO-413)  Paper No(s)/Mail Date.						
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  Paper No(s)/Mail Date Paper No(s)/Mail Date  5) Notice of Informal Patent Application (PTO-152)  6) Other:						

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### **DETAILED ACTION**

### Information Disclosure Statement

1. The information disclosure statement (IDS) submitted on 07/29/2003 has been received, entered into the record, and considered. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

The information disclosure statement (IDS) submitted on 01/17/2006 is not in compliance with the provisions of 37 CFR 1.97. The statement discloses a lone patent (U.S. Patent 6,723,117) that does not exist and has been withdrawn. Accordingly, the information disclosure statement is not being considered by the examiner.

## Specification

2. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: In claim 7, the term "throughput" is never mentioned in the specification. Appropriate correction is required.

### Claim Objections

3. Claim 15 is objected to under 37 CFR 1.75 as being a substantial duplicate of claim 3. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

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Claim 16 is objected to under 37 CFR 1.75 as being a substantial duplicate of claim 4. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Applicant is advised that should claim 3 be found allowable, claim 15 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Applicant is advised that should claim 4 be found allowable, claim 16 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

4. Claim 14 is objected to because of the following informalities: The applicant is reminded that all claims must end with a period. Appropriate correction is required.

Claim 31 is objected to because of the following informalities: The applicant is reminded that all claims must end with a period. Appropriate correction is required.

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Claim 31 is objected to because of the following informalities: The applicant is reminded that no limitations that are claimed after a period can be considered. After the limitation "a switch coupled to each of the database system and the application system", a period appears. Appropriate correction is required.

Claim 33 is objected to because of the following informalities: The phrase "and the database system being coupled a storage system" is incoherent. The examiner suggests that the applicant change this phrase to "and the database system being coupled **to** a storage system ". Appropriate correction is required.

### Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- 6. Claims 1-8; 15-21, 23-33, and 37-42 are rejected under 35 U.S.C. 102(b) as being anticipated by **Eldreth** (U.S. Patent 6,292,800).
- 7. Regarding claim 1, **Eldreth** teaches a system comprising:
- A) an application system for providing queries to a database system including the database, the database system coupled to the application system via a first connection (Column 1, lines 32-38, Figure 2);

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B) a storage system coupled to each of the application system and the database system (Column 3, lines 7-15, Figure 2); and

C) a return path selector coupled to the database system for selecting a return path over which to return results from queries made to the database system, the return path selector selecting from among at least the first connection or the storage system (Column 3, lines 25-37, Figures 2-3).

Regarding claim 2, Eldreth further teaches a system comprising:

A) a request path selector coupled to the application system for selecting a request path over which to send query data for requests made to the database system, the request path selector selecting from among at least the first connection or the storage system (Column 3, lines 25-37, Figures 2-3).

Regarding claim 3, Eldreth further teaches a system comprising:

A) wherein the storage system is coupled to each of the application system and the database system using a switch (Column 3, lines 25-37, Figures 2-3).

Regarding claim 4, Eldreth further teaches a system comprising:

A) wherein a database hub system is used to couple the application system and the database system (Column 3, lines 25-37, Figures 2-3).

Regarding claim 5, Eldreth further teaches a system comprising:

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A) wherein the results from the query have a size, and the return path selector chooses

a return path based on the size of the results (Column 3, lines 7-15).

Regarding claim 6, **Eldreth** further teaches a system comprising:

A) wherein the return path selector chooses a return path based on a prediction of the

size of the results (Column 3, lines 7-15).

Regarding claim 7, **Eldreth** further teaches a system comprising:

A) wherein the return path selector chooses a return path based on a measurement of

throughput of the first connection (Column 3, lines 7-15).

Regarding claim 8, **Eldreth** further teaches a system comprising:

A) wherein when the return path is chosen to be the storage system, the results are

sent to the storage system as a file and an address in the storage system for the file is

provided to the application system using the first connection (Column 7, lines 9-16).

Regarding claim 15, **Eldreth** further teaches a system comprising:

A) wherein the storage system is coupled to each of the application system and the

database system using a switch (Column 3, lines 25-37, Figures 2-3).

Regarding claim 16, Eldreth further teaches a system comprising:

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A) wherein the database includes a hub system for system coupled to each of the application system and the database system (Column 3, lines 25-37, Figures 2-3).

Regarding claim 17, **Eldreth** teaches a system comprising:

- A) an application system for providing queries to a database system coupled to the application system via a first connection (Column 1, lines 32-38);
- B) a storage system coupled to each of the application system and the database system (Column 3, lines 7-15, Figure 2); and
- C) a request path selector coupled to the application system for selecting a request path over which to send query data for requests made to the database system, the request path selector selecting from among at least the first connection or the storage system (Column 3, lines 25-37, Figures 2-3).

Regarding claim 18, **Eldreth** further teaches a system comprising:

A) wherein the storage system is coupled to each of the application system and the database system using a switch (Column 3, lines 25-37, Figures 2-3).

Regarding claim 19, Eldreth further teaches a system comprising:

A) wherein a database hub system is used to couple the application system and the database system (Column 3, lines 25-37, Figures 2-3).

Regarding claim 20, **Eldreth** further teaches a system comprising:

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A) wherein the query data have a size, and the request path selector chooses a request path based on the size of the query data (Column 3, lines 7-15).

Regarding claim 21, Eldreth further teaches a system comprising:

A) wherein when the request path is chosen to be the storage system, the query data are sent to the storage system as a file and an address in the storage system for the file is provided to the database system using the first connection (Column 7, lines 9-16).

Regarding claim 23, **Eldreth** further teaches a system comprising:

A) wherein the file also has associated therewith a flag to indicate status of the file (Column 5, lines 22-44).

Regarding claim 24, Eldreth further teaches a system comprising:

A) wherein the flag indicates at least one of whether the file is being written, is ready to be read, is being read, and is available to be deleted (Column 5, lines 22-44).

Regarding claim 25, Eldreth further teaches a system comprising:

A) a return path selector coupled to the database system for selecting a return path over which to return results from queries made to the database system, the return path selector selecting from among at least the first connection or the storage system (Column 3, lines 25-37, Figures 2-3).

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Regarding claim 26, Eldreth further teaches a system comprising:

A) wherein the results from the query have a size, and the return path selector chooses a return path based on the size of the results (Column 3, lines 7-15).

Regarding claim 27, **Eldreth** further teaches a system comprising:

A) wherein when the return path is chosen to be the storage system, the results are sent to the storage system as a file and an address in the storage system for the file is provided to the application system using the first connection (Column 7, lines 9-16).

Regarding claim 28, Eldreth teaches a system comprising:

- A) an application system for providing queries to a database system coupled to the application system via a first connection (Column 1, lines 32-38);
- B) the application system including a database access system, and the database system including a gateway system (Column 3, lines 7-15, Figure 2);
- C) a storage system coupled to each of the application system and the database system (Column 3, lines 7-15, Figure 2); and
- D) the gateway system including a return path selector for selecting a return path over which to return results from queries made to the database system, the return path selector selecting from among at least the first connection or the storage system (Column 3, lines 25-37, Figures 2-3).

Regarding claim 29, **Eldreth** further teaches a system comprising:

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A) wherein the gateway system includes a return path selector for selecting a return path over which to return results from queries made to the database system, the return path selector selecting from among at least the first connection or the storage system (Column 3, lines 25-37, Figures 2-3).

## Regarding claim 30, Eldreth teaches a system comprising:

- A) an application system for providing queries to a database system coupled to the application system via a-first connection (Column 1, lines 32-38);
- B) the application system including a database access system; and
- C) the database system including a gateway system (Column 3, lines 7-15, Figure 2);
- D) a storage system coupled to each of the application system and the database system (Column 3, lines 7-15, Figure 2); and
- E) the database access system including a request path selector for selecting a request path over which to send data for queries made to the database system, the request path selector selecting from among at least the first connection or the storage system (Column 3, lines 25-37, Figures 2-3).

# Regarding claim 31, **Eldreth** teaches a system comprising:

- A) an application system for providing queries to a database system including the database (Column 1, lines 32-38, Figure 2);
- B) the database system coupled to the application system via a communications network connection (Column 1, lines 32-38, Figure 2); and

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C) a switch coupled to each of the database system and the application system (Column 3, lines 25-37, Figures 2-3).

D) a storage system coupled to the switch (Column 3, lines 25-37, Figures 2-3); and

E) a return path selector coupled to the database system for selecting a return path over which to return results from gueries made to the database system, the return path selector selecting from among at least the communications network connection and the switch (Column 3, lines 25-37, Figures 2-3);

Regarding claim 32, Eldreth further teaches a system comprising:

A) a request path selector coupled to the application system for selecting a request path over which to send query data for requests made to the database system, the request path selector selecting from among at least the communications network connection or the switch (Column 3, lines 25-37, Figures 2-3).

Regarding claim 33, **Eldreth** teaches a system comprising:

- A) a query provider which provides queries to a database system connected to it by a first connection (Column 1, lines 32-38, Figure 2);
- B) the query provider and the database system being coupled a storage system (Column 3, lines 7-15, Figure 2);
- C) a method of returning results to the query provider comprising storing the results in the storage system at an address; and

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D) sending the address of the results over the first connection to the query provider (Column 7, lines 9-16).

Regarding claim 37, **Eldreth** further teaches a system comprising:

- A) storing the query data in the storage system at a location (Column 7, lines 9-16); and
- B) sending information about the location over the first connection to the database system (Column 3, lines 25-37, Figures 2-3).

Regarding claim 38, **Eldreth** further teaches a system comprising:

- A) retrieving the query data from the storage system (Column 3, lines 25-37, Figures 2-
- 3); and
- B) using the query data to obtain the results (Column 3, lines 25-37, Figures 2-3).

Regarding claim 39, **Eldreth** further teaches a system comprising:

A) providing a flag associated with the results to indicate whether the results are ready to be read by the guery provider (Column 5, lines 22-44).

Regarding claim 40, Eldreth further teaches a system comprising:

A) providing a flag associated with the results to indicate whether the results have been read by the query provider (Column 5, lines 22-44).

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Regarding claim 41, Eldreth teaches a data storage system comprising:

- A) receiving from the database system over the network, results of execution of queries, the queries being sent to the database system by the application system (Column 1, lines 32-38, Figure 2);
- B) storing the results in a storage area that the database system and the application system can access (Column 7, lines 1-8); and
- C) sending, in response to a request from the application system, the results to the application system over the network (Column 3, lines 25-37, Figures 2-3).

Regarding claim 42, **Eldreth** teaches a data storage system comprising:

- A) sending a query from the application system to the database system by using the first connection (Column 1, lines 32-38, Figure 2); and
- B) obtaining at the application system, a result of execution of the query from the storage system via the second connection (Column 3, lines 25-37, Figures 2-3).

# Claim Rejections - 35 USC § 103

- 8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

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9. Claims 9 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Eldreth** (U.S. Patent 6,292,800) as applied to claims 1-8, 15-21, 23-33, and 37-42 above and in view of **Luke et al.** (U.S. Patent 6,985,956).

10. Regarding claim 9, **Eldreth** does not explicitly teach a system comprising:

A) wherein after the results are used by the application system, the application system designates the results as used, thereby enabling them to be erased from the storage system at a later time.

Luke, however, teaches "wherein after the results are used by the application system, the application system designates the results as used, thereby enabling them to be erased from the storage system at a later time" as "cache a file, retrieve a cached file (on board or off), and bypass a cached file (On board or off)" (Column 9, lines 6-14).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching **Luke's** would have allowed **Eldreth's** to provide a methods to simplify management of storage in digital networks, and enable flexible deployment of NAS, SAN, and other storage systems, as noted by **Luke** (Column 3, lines 15-18).

Regarding claim 14, Eldreth does not explicitly teach a system comprising:

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A) wherein after the query data is used by the database system, the database system designates the query data as used, thereby enabling them to be erased from the storage system at a later time.

Luke, however, teaches "wherein after the query data is used by the database system, the database system designates the query data as used, thereby enabling them to be erased from the storage system at a later time" as "cache a file, retrieve a cached file (on board or off), and bypass a cached file (On board or off)" (Column 9, lines 6-14).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching **Luke's** would have allowed **Eldreth's** to provide a methods to simplify management of storage in digital networks, and enable flexible deployment of NAS, SAN, and other storage systems, as noted by **Luke** (Column 3, lines 15-18).

- 11. Claims 11-13, 22, 34-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Eldreth** (U.S. Patent 6,292,800) as applied to claims 1-8, 15-21, 23-33, and 37-42 above and in view of **Dar et al.** (U.S. PGPUB 2003/0154236).
- 12. Regarding claim 11, **Eldreth** does not explicitly teach a system comprising:
- A) wherein the file has associated therewith a key and the key is used to control access to the results.

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Dar, however, teaches "wherein the file has associated therewith a key and the key is used to control access to the results" as "communication between the agents and dBSwitch may be encrypted, in order to ensure that the agents only performs commands on behalf of the dBSwitch and that information sent from the agents can only be used by the dBSwitch" (Paragraph 64).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching **Dar's** would have allowed **Eldreth's** to provide a method to provide for high utilization, high availability, scalability on demand, simplified management and security, in a shared and heterogeneous application environment, as noted by **Dar** (Paragraph 22).

Regarding claim 12, **Eldreth** further teaches a system comprising:

A) wherein the file also has associated therewith a flag to indicate status of the file (Column 5, lines 22-44).

Regarding claim 13, **Eldreth** further teaches a system comprising:

A) wherein the flag indicates at least one of whether the file is being written, is ready to be read, is being read, and is available to be deleted (Column 5, lines 22-44).

Regarding claim 22, **Eldreth** does not explicitly teach a system comprising:

A) wherein the file has associated therewith a key and the key is used to control access to the results.

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Dar, however, teaches "wherein the file has associated therewith a key and the key is used to control access to the results" as "communication between the agents and dBSwitch may be encrypted, in order to ensure that the agents only performs commands on behalf of the dBSwitch and that information sent from the agents can only be used by the dBSwitch" (Paragraph 64).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching **Dar's** would have allowed **Eldreth's** to provide a method to provide for high utilization, high availability, scalability on demand, simplified management and security, in a shared and heterogeneous application environment, as noted by **Dar** (Paragraph 22).

Regarding claim 34, **Eldreth** does not explicitly teach a system comprising:

- A) generating a key for the results to identify their location; and
- B) sending the key over the network to the query provider.

Dar, however, teaches "generating a key for the results to identify their location" and "sending the key over the network to the query provider" as "communication between the agents and dBSwitch may be encrypted, in order to ensure that the agents only performs commands on behalf of the dBSwitch and that information sent from the agents can only be used by the dBSwitch" (Paragraph 64).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching.

Dar's would have allowed Eldreth's to provide a method to provide for high utilization,

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high availability, scalability on demand, simplified management and security, in a shared and heterogeneous application environment, as noted by **Dar** (Paragraph 22).

Regarding claim 35, **Eldreth** further teaches a system comprising:

A) a step of, at the query provider, retrieving the results from the storage system (Column 3, lines 25-37, Figures 2-3).

Regarding claim 36, **Eldreth** does not explicitly teach a system comprising:

A) encrypting at least one of the key and the results.

Dar, however, teaches "encrypting at least one of the key and the results" as "communication between the agents and dBSwitch may be encrypted, in order to ensure that the agents only performs commands on behalf of the dBSwitch and that information sent from the agents can only be used by the dBSwitch" (Paragraph 64).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching **Dar's** would have allowed **Eldreth's** to provide a method to provide for high utilization, high availability, scalability on demand, simplified management and security, in a shared and heterogeneous application environment, as noted by **Dar** (Paragraph 22).

13. Claim 43 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Eldreth** (U.S. Patent 6,292,800) as applied to claims 1-8, 15-21, 23-33, and 37-42 above and in view of **Garimella et al.** (U.S. PGPUB 2005/0015415).

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14. Regarding claim 43, Eldreth does not explicitly teach a system comprising:

A) wherein the first connection is a Local Area Network; and

B) wherein the second connection is a Storage Area Network.

Garimella, however, teaches "wherein the first connection is a Local Area Network" as "LAN" (Figure 1) and "wherein the second connection is a Storage Area Network" as "SAN" (Figure 1).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching **Garimella's** would have allowed **Eldreth's** to provide a method to improve coordination of vokume access operations to avoid conflicts and corruption problems when multiple devices have access to the volume over a network, as noted by **Garimella** (Paragraph 7).

### Conclusion

- 15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
- U.S. PGPUB 2002/0083120 issued to **Soltis** on 27 June 2002. The subject matter disclosed therein is pertinent to that of claims 1-43 (e.g., methods to use and operate storage networks).
- U.S. PGPUB 2002/013359 issued to **Monday** on 19 September 2002. The subject matter disclosed therein is pertinent to that of claims 1-43 (e.g., methods to use and operate storage networks).

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U.S. Patent (5,950,203) issued to **Stakuis** on 07 September 1999. The subject matter disclosed therein is pertinent to that of claims 1-43 (e.g., methods to use and operate storage networks).

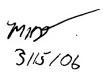
#### Contact Information

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mahesh Dwivedi whose telephone number is (571) 272-2731. The examiner can normally be reached on Monday to Friday 8:20 am – 4:40 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tim Vo can be reached (571) 272-3642. The fax number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <a href="http://pair-direct.uspto.gov">http://pair-direct.uspto.gov</a>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Mahesh Dwivedi
Patent Examiner
Art Unit 2168



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March 15, 2006

Leslie Wong

**Primary Examiner**